

P-535 - COGNITIVE FUNCTIONING MAY PREDICT TREATMENT RESPONSE OF ESCITALOPRAM IN MAJOR DEPRESSION: AN EIGHT WEEKS OPEN LABEL STUDY

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Introduction: Major depressive disorder is a prevalent mental disorder. Although several interventions are effective, treatment response (TR) remains difficult to predict.

Objectives: This study aimed a) to investigate whether cognitive functioning improved after treatment with escitalopram, b) to evaluate if baseline cognitive functioning predicted TR and c) to detect the biological processes underlying TR.

Methods: Thirty-seven patients and 32 healthy controls were included. Patients were treated with escitalopram flexible dose regime. Patients were assessed before treatment, 2 and 8 weeks after the start of escitalopram. Cognitive functioning was investigated using the STROOP colour word test, the verbal fluency test, future thinking task and the emotional STROOP test. Depressive symptoms were assessed using the BDI-II. Metabolism PET (18F-FDG) was performed at baseline and week 8.

Results: All patients significantly differed from controls on cognitive ($p < 0.01$) and depressive ($p < 0.001$) measures at baseline, which further improved after treatment. In contrast to responders, significant differences were found between controls and non-responders before treatment on all cognitive measures. These differences disappeared after treatment except for the future-thinking task. In association, non-responders compared to responders showed a lower metabolism in the bilateral prefrontal cortex ($p < 0.001$), which normalized after treatment. Subcortical decrease in the frontal-striatal thalamic tract after treatment further differentiated responders from non-responder ($p < 0.001$).

Conclusion: Escitalopram improved depressive symptoms and cognitive functioning in depression. Poor treatment response of escitalopram may be associated with pre-treatment worse cognitive functioning and lower activity in the prefrontal cortex.